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No. 5.

WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY.

E. A. BIRGE, Director.

GEOLOGICAL SURVEY

Hydrographic Map

OF THE

CHAIN-O'-LAKES,

Waupaca County, Wis.

GEOLOGICAL SURVEY
18031
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Hydrography in Charge of L. S. Smith.

MADISON, WISCONSIN
1899

Explanation of Map.

This map shows by means of contour lines and tints the hydrography of the Chain of Lakes, Waupaca county. The soundings on which the map is based were made during the summer of 1898. The points at which soundings were made are indicated on the map by means of black dots. In some places the depth of water is given in figures and the decimal point indicates the position of the sounding which is recorded. The position of the several soundings was fixed by means of stadia observations, and the survey included also a careful tracing of the outlines of the lakes. These are more accurately shown on this map than on any hitherto published. The water in these lakes is so clear that the outlines of many of the shoals are indicated with even more accuracy than the number of soundings would warrant, since it was possible to fix their limits as seen through the water.

The outline of the lake indicates, of course, the outline of the water at its level in 1898. The line marked "10" indicates the 10-ft. level and is drawn through the points where the water has a depth of 10 feet. It shows also what the outline of the lake would be if the water were lowered 10 feet. The next line marks the depth of 20 feet, and so on with the succeeding lines. The space between any line and the next inside of it indicates the distance required for the depth of the water to increase 10 feet. The lines therefore indicate the slope of the bottom Where they are close together the slope is steep and where they are far apart the slope is correspondingly gradual.

In order to make plainer the shape of the basins, the depth of the water has been indicated by a blue color printed in four tints. The shoal water to a depth of 10 feet has the lightest tint; the second tint indicates the depth from 10 to 30 feet; the third tint, from 30 to 50 feet; while the areas occupied by the deeper water below 50 feet have received the darkest tint.

It will be seen that the Chain of Lakes consists of a series of small basins with sides sloping down somewhat abruptly to a depth which is very considerable in proportion to the areas of the lakes.

In the sections of the lake the horizontal scale is the same as that of the map, but the vertical scale has been magnified three times. This enlargment of the vertical scale necessarily exaggerates the steepness of the slope of the bottom in the same proportion.

HYDROGRAPHIC MAP
OF THE
CHAIN-O'-LAKES, WAUPACA CO. WIS.
PREPARED FROM SURVEYS BY THE
WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY.

E. A BIRGE, PH D. DIRECTOR

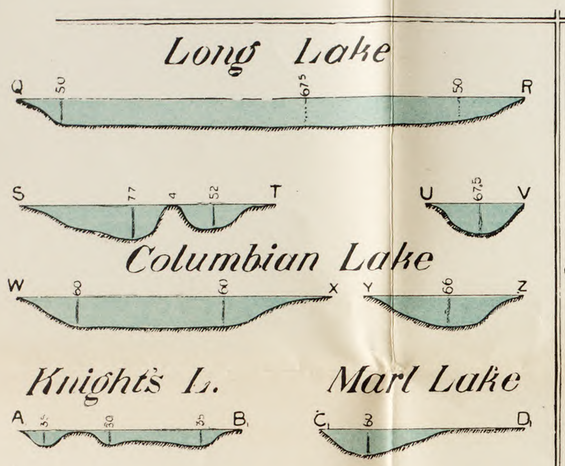
Hydrography in charge of L S Smith C.E

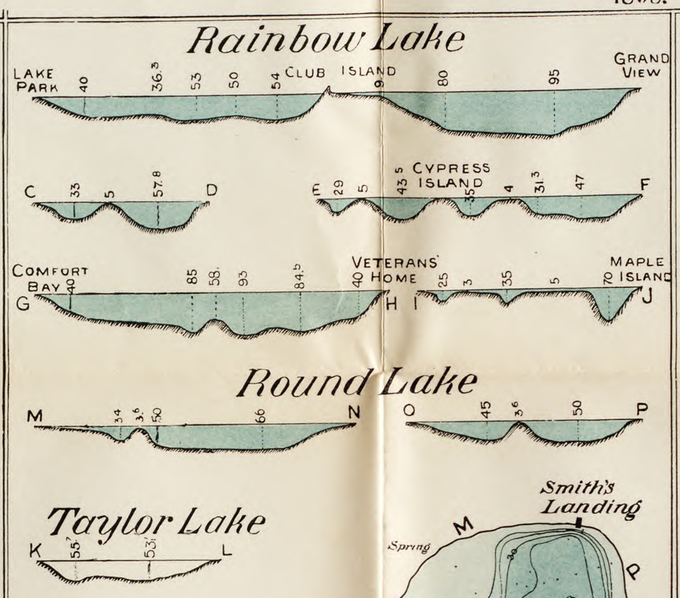
Contour Intervals 10 Feet

SCALE IN MILES

0 1/8 1/4 3/8 1/2 MILE

1898.





NOTE.
IN THE ABOVE CROSS-SECTIONS THE HORIZONTAL SCALE IS THE SAME AS THE MAP BUT THE VERTICAL SCALE HAS BEEN MAGNIFIED THREE TIMES.



Statistics

Name of Lake.	Area.	Greatest Depth
Rainbow Lake	146 Acres	95.1 Feet
Long Lake	110 "	77.7 "
Round Lake	108 "	66.7 "
Hicks' Lake	97 "	60.0 "
Columbian "	86 "	66.6 "
Taylor's "	49.7 "	55.7 "
Miner's "	39 "	46.6 "
Dake "	37 "	28.5 "
McCrossen's "	34 "	70.0 "
Marl "	21 "	60.6 "
Knight's "	21 "	42.6 "
Pope "	14 "	40.6 "
Otter "	14 "	40.0 "
Beasley's "	13.5 "	51.2 "
Mud "	4.5 "	32.0 "
Young's "	3 "	11.6 "
Bass "	2.5 "	9.0 "

10 FT.
30 "
50 "